Corrections of *GEE Analysis of Clustered Binary Data with Diverging Number of Covariates*

I thank Drs. Xianbin Chen and Juliang Yin for pointing out some typos and small errors in the supplement of the paper. Please find the corrections below.

1. In evaluating J_{n1}, there is a missing $\mathbf{X}_{ij}$. We should have

$$\begin{aligned}
&\sup_{||\boldsymbol{\beta}_n-\boldsymbol{\beta}_{n0}||\leq\Delta\sqrt{\frac{p_n}{n}}}\ \sup_{||\mathbf{b}_n||=1} J_{n1}(\boldsymbol{\beta}_n)\\
\leq\ & CO_p(\sqrt{p_n/n})O_p(\sqrt{p_n/n})\lambda_{max}(\sum_{i=1}^n \mathbf{X}_i^T\mathbf{X}_i)\sup_{i,j}||\mathbf{X}_{ij}|| = O_p(p_n^{3/2}) = O_p(\sqrt{np_n}),
\end{aligned}$$

   by assumptions (A1) and (A3). So the original upper bound $O_p(\sqrt{np_n})$ in the proof remains the same, as it is assumed in Theorem 5.1 that $n^{-1}p_n^2 = o(1)$.

2. In the evaluation of $J_{n5}(\boldsymbol{\beta}_{n0})$, instead of taking the expectation, the order can be evaluated directly by applying the Cauchy-Schwartz inequality.

$$\begin{aligned}
||J_{n5}(\boldsymbol{\beta}_{n0})|| \ \leq\ & \sqrt{\sup_{||\mathbf{b}_n||=1}\sum_{i=1}^n ||b_n^T\mathbf{X}_i^T\mathbf{A}_i^{1/2}(\boldsymbol{\beta}_{n0})(\widehat{\mathbf{R}}^{-1}-\overline{\mathbf{R}}^{-1})||^2}\\
&\times\sqrt{\sup_{||\mathbf{b}_n||=1}\sum_{i=1}^n ||\mathbf{A}_i^{-3/2}(\boldsymbol{\beta}_{n0})\mathbf{C}_{i2}(\boldsymbol{\beta}_{n0})\mathbf{F}_i(\boldsymbol{\beta}_{n0})\mathbf{X}_i b_n||^2}.
\end{aligned}$$

   This eliminates the problem of the dependence between $\widehat{\mathbf{R}}^{-1}$ and $\mathbf{Y}_i$. It is easy to see that the first term is of order $O_p(\sqrt{p_n})$ and the second term is of order $O_p(\sqrt{n})$. Hence, we have $||J_{n5}(\boldsymbol{\beta}_{n0})|| = O_p(\sqrt{np_n})$. The same order as the original claim.

3. Regarding Remark 2 of the paper, We note that the matrix $\mathbf{D}_n(\boldsymbol{\beta}_n) - \overline{\mathbf{D}}_n(\boldsymbol{\beta}_n)$ is not necessarily symmetric in general. However, this will not influence the proof. What one really need in the proof is just Lemma 3.3, which does not require $\mathbf{D}_n(\boldsymbol{\beta}_n) - \overline{\mathbf{D}}_n(\boldsymbol{\beta}_n)$ to be symmetric (it just does not have the eigenvalue interpretation). Remark 2 can in fact be eliminated from the paper. When evaluating terms such as $(\boldsymbol{\beta}_n - \boldsymbol{\beta}_{n0})^T[\mathbf{D}_n(\boldsymbol{\beta}_n^*) - \overline{\mathbf{D}}_n(\boldsymbol{\beta}_n^*)](\boldsymbol{\beta}_n - \boldsymbol{\beta}_{n0})$, we will just get rid of the eigenvalue notation and apply Lemma 3.3 directly.